What is claimed is:

1. A method of using an unencrypted key, said method comprising:

    encrypting said unencrypted key according to an encryption protocol to generate an encrypted key;

    storing said encrypted key in a non-volatile memory;

    retrieving said encrypted key into an integrated circuit when said unencrypted key is required for use;

    decrypting said encrypted key in said integrated circuit to generate said unencrypted key; and

    using said unencrypted key.

2. The method of claim 1, wherein said unencrypted key is used within said integrated circuit.

3. The method of claim 2, wherein said unencrypted key comprises an authentication key and said using comprises authenticating a source of data.

4. The method of claim 2, wherein said unencrypted key comprises a decryption key and said using comprises decrypting data.

5. A method of using a unencrypted key in a display unit, said method comprising:

    receiving said unencrypted key in said display unit;

3   encrypting said key according to an encryption protocol to generate an encrypted key;

4   storing said encrypted key in a non-volatile memory contained within said display unit;

5   retrieving said key into an integrated circuit when said key is required for use, wherein

6 said integrated circuit is contained within said display unit;

7   decrypting said key in said integrated circuit; and

8   using said key.

1   6. The method of claim 5, wherein said display unit comprises an analog display unit.

7. The method of claim 5, wherein said display unit comprises a digital display unit.

8. The method of claim 5, further comprising receiving a display signal containing a

plurality of pixel data elements in an encrypted format, wherein decryption of said plurality of

pixel data elements requires said unencrypted key, wherein said unencrypted key is used to

decrypt said plurality of pixel data elements.

1   9. The method of claim 5, further comprising authenticating a source of data, wherein

2 said authenticating is performed using said unencrypted key based on data sent and received on

3 a path connected to said display unit.

1   10. The method of claim 9, wherein said path is implemented using I^2C protocol.

1   11. The method of claim 5, wherein a master block external to said display unit sends

2   said unencrypted key, said method further comprising sending said encrypted key to said master

3   block, wherein said mater block stores said encrypted key in said non-volatile memory.

1   12. A display circuit for use in a display unit, said display circuit comprising:

2   a non-volatile memory storing a encrypted key, wherein said encrypted key is generated

3   from an unencrypted key according to an encryption protocol;

4   an integrated circuit coupled to said non-volatile memory, said integrated circuit receiving

5   said key in encrypted form and decrypting said key to generate a decrypted key, said integrated

6   circuit using said decrypted key.

13. The display circuit of claim 12, wherein said integrated circuit comprises a key

2   encryption circuit receiving said unencrypted key, said key encryption circuit generating said

3   encrypted key from said unencrypted key according to said encryption protocol.

1   14. The display circuit of claim 13, wherein said integrated circuit further comprises:

2   a memory receiving said encrypted key; and

3   a port coupled to said memory, said port receiving said encrypted key from said memory

4   and sending said encrypted key to a master block, wherein said master block stores said

5   encrypted key in said non-volatile memory.

1   15. The display circuit of claim 13, wherein said integrated circuit further comprises a

2   key decryption circuit receiving said encrypted key, and generating said decrypted key according

3   to said encryption protocol.

1   16. The display circuit of claim 15, further comprising:

2   a receiver receiving a plurality of digital data elements encoded in a display signal,

3   wherein said digital data elements represent a plurality of pixel data elements in an encrypted

4   form, said plurality of pixel data elements representing an image; and

5   a data decryption circuit receiving said plurality of digital data elements and generating

6   said plurality of pixel data elements,

    wherein said image is generated on a display screen based on said plurality of pixel data

8   elements.

    17. The display circuit of claim 16, wherein said display signal is received according to

    TMDS format.